**Date:** Tuesday, June 5, 2012  
**Time:** 2:30 p.m.  
**Place:** Balsillie School of International Affairs, Room 142 [directions/parking information enclosed]

### OPEN SESSION

- **2:30** 1. Remarks from the Chair  
  - Page: Oral  
  - Action: Information
- **2:35** 2. Approval of Agenda/Additional Agenda Items  
  - Page: Oral  
  - Action: Decision
- **2:40**  
  - **Consent Agenda**  
    - Motion: To approve and/or receive for information by consent items 3 and 4 below.
  - **3.** Approval of the April 3, 2012 Minutes [enclosed]  
    - Page: Decision
  - **4.** Report of the President  
    - a. Recognition and Commendation  
      - Page: 1-3  
      - Action: Information
    - b. Sabbatical/Administrative Leaves/Leave Change and Administrative Appointments  
      - Page: 4-10  
      - Action: Decision/Information
- **2:45**  
  - **Regular Agenda**  
  - **5.** Business Arising from the Minutes
- **2:50** 6. Research Presentation: Professor Geoffrey Fong, Psychology and Health Studies  
  - Page: Oral  
  - Action: Information
- **3:05** 7. Report of the President  
  - a. Global Scan  
    - Page: Oral  
    - Action: Information
  - b. University Scan  
    - Page: Oral  
    - Action: Information
  - c. 2012-13 President's Priorities  
    - Page: 13-14  
    - Action: Information
  - a. Changes to FAUW/UW Memorandum of Agreement  
    - Page: 15-18  
    - Action: Decision
  - b. 2012-13 Operating Budget  
    - Page: 19-23  
    - Action: Decision
- **4:15** 9. Report of the Vice-President, Administration & Finance  
  - a. Changes to Incidental Fees  
    - Page: 24-25  
    - Action: Decision
- **4:25** Break
- **4:40** 10. Report of the Vice-President, University Relations and Interim Vice-President, Advancement  
  - Page: Information
- **4:50** 11. Report of the Vice-President, University Research  
  - Page: Information
- **5:00** 12. Reports from Committees  
  - a. Audit  
    - Page: 30  
    - Action: Decision/Information
  - b. Building & Properties  
    - Page: 31-32  
    - Action: Decision/Information
5:20  c. Finance & Investment
5:30  d. Pension & Benefits
13. Other Business
   a. IQC’s Annual Report to the Minister of Industry – Executive Summary [full report at http://iqc.uwaterloo.ca/resources/reports/IQ12_Report120511.pdf/view]
5:40
5:50  14. Report from the Building & Properties Committee
6:00  Consent Agenda
   Motion: To approve by consent items 15-17 below.
   15. Approval of the April 3, 2012 Minutes [enclosed]
   16. Report of the President
      a. New Appointments with Tenure
      b. Tenure Recommendation
   17. Other Business
      a. Appointment to the Pension & Benefits Committee
         [to be at governors’ places]
6:05  18. Business Arising from the Minutes
6:10  19. Report from the Governance Committee
6:20  20. Other Business
21. Adjournment/Next Meeting: Tuesday, October 30, 2012

Action Item Enclosed: Conflict of Interest Declaration

Note: To allow the board to complete a number of matters quickly and to devote more of its attention to major items of business, the agenda has been divided between items that are to be approved and/or received for information by consent and those that are to be presented individually for discussion and decision and/or information.

A consent agenda is not intended to prevent discussion of any matter by the board, but items listed under the consent sections will not be discussed at the meeting unless a governor so requests. Governors are supplied with the appropriate documentation for each item and all items will be approved by means of one omnibus motion. The board will then move immediately to consideration of the items on the regular agenda.

MRA: t/May 29, 2012
Marie Armstrong, Associate University Secretary

Please convey regrets to Tracy Dietrich at (519) 888-4567, x36125 or tdietrich@uwaterloo.ca
FOR INFORMATION

Recognition and Commendation

Three members of the University of Waterloo community were honoured at the annual Women of Waterloo Region (WOW) awards event held on March 28 at the Waterloo Inn. The WOW awards have six categories: Education, Entrepreneur, Creative Arts, Technology and Science, Community Engagement, and WOW Factor. Geography and environmental management professor Jean Andrey was honoured with an award in the Education category. “I feel very honored to be recognized in this way,” says Andrey. In a nomination letter, Brock University geography professor Marilyne Jollineau called Andrey the most outstanding and most influential teacher she ever had. As a graduate student, Jollineau was one of Andrey’s teaching assistants. “I was able to observe Jean’s teaching style and soon realized that her teaching philosophy largely focused on teaching her students how to think rather than what to think,” she wrote. “I modelled my teaching style after hers.” Systems design engineering professor Maud Gorbet was awarded for her work in the community in the Science and Technology category. Gorbet is an expert in the area of biomaterials and their use for applications such as the contact lens, and her research focuses on developing novel materials and assessing biocompatibility of materials. She was recognized for her leadership in bringing the FIRST Lego League program to Waterloo region that has resulted in children between the ages of nine and 14 becoming excited about science and technology. “I love what I do,” Gorbet said in a statement. “I am passionate about my research and I love talking about it and being able to promote science and technology in a fun way in outreach activities.” Kim Jernigan, long-time editor of the Waterloo-published literary magazine The New Quarterly, won in the Creative Arts category. “She has brought national attention to regional writers and supported the local arts scene through her work on the Boards of the Waterloo Region Arts Council, the Region of Waterloo Arts Fund, and the One Book, One Community initiative,” the WOW award citation reads. Jernigan is a lecturer at St. Jerome’s University, which houses The New Quarterly, and has also taught at the Writing Centre. [April 2/12 Daily Bulletin]

Biology professor Niels Bols was recently awarded the 2012 Lifetime Achievement award by the Society for In Vitro Biology (SIVB). The award was established in 1989 “to recognize those individuals who not only excel in their chosen field of study but who have also made significant contributions in the field of in-vitro biology and/or in the development of novel technologies that have advanced in vitro biology.” Bols is the invited speaker at the SIVB World Congress on In Vitro Biology in Bellevue, Washington. He will be presented with his award during the international conference on June 4, 2012. [Mar. 26/12 Daily Bulletin]

Chair of Renison University College Board of Governors and systems design engineering professor Keith Hipel has received the 2012 Japan Society for the Promotion of Science Eminent Scientist Award. The award is Japan’s highest research prize for international scientists and is granted to researchers “who possess a record of excellent research achievements and who are mentors and leaders in their respective fields.” This is the first time this prize has been awarded to a Canadian academic. According to the Society’s website, the award invites the winners to visit Japan “for the purpose of associating directly with younger Japanese researchers so as to mentor, stimulate and inspire them to greater attainments. The awardees may also be asked to contribute their advice and expertise on ways to enhance the planning, conducting and evaluating of scientific research at Japanese universities and research institutions.” [Mar. 16/12 Daily Bulletin]
Robert Sproule, accounting and finance professor, was named one of five winners of the inaugural Desire2Learn Innovation Award in Teaching and Learning. Established by the Society for Teaching and Learning in Higher Education and Desire2Learn Incorporated, the award seeks to recognize and celebrate innovative teaching approaches in post-secondary education, both nationally and internationally. Sproule is a member of the university’s Teaching Excellence Council, and, as his nomination package outlines, has facilitated a number of instructional and teaching excellence workshops while demonstrating creativity in his course design, with AFM 131, An Introduction to Business in North America, as the highlighted example. The distinguished winners were chosen by a panel of six educators from various Canadian post-secondary institutions. [May 14/12 Daily Bulletin]

Mechanical and mechatronic engineering professor Gordon Stubley, and the Faculty of Engineering’s first associate dean (teaching), has been honoured with a 2012 Ontario Undergraduate Student Alliance Award for Excellence in Teaching. He was one of eight province-wide to receive the award. Stubley was nominated by the University of Waterloo’s Federation of Students. [May 3/12 Daily Bulletin]

Alannah Robinson, a 3rd-year Honours Recreation and Leisure Studies student, was among the ten winners of the inaugural 3M National Student Fellowship Program. The fellowship program is a partnership between 3M Canada and the Society for Teaching and Learning in Higher Education (STLHE). The 3M National Student Fellowships honour up to ten full-time college and undergraduate university students “who have demonstrated qualities of outstanding leadership and who embrace a vision where the quality of their educational experience can be enhanced in academia and beyond.” Winners receive a $5,000 award and are invited to join other award winners at the annual STLHE conference (held in Montreal in late June) with travel and accommodation expenses paid. “She sees gaps and actively finds solutions to fill them such as organizing uWaterloo’s first-ever invocation ceremony which officially welcomed over 4,000 students to their post-secondary experience,” reads Robinson’s fellowship citation. “She sees potential in others, and does everything she can to help them reach it, as demonstrated through her involvement with a conference called Action Minded People Empowered to Dream. She actively seeks opportunities to help others gain the skills they need to improve. Alannah has highlighted an important and common issue present on campus: segregation. She sees community as a tool to break down barriers and recognizes its essential role to a well-rounded educational experience and one that is central to her involvement at the University of Waterloo. She has been a community-builder for the last two years as Residence Life Don, where she supports the academic and personal needs of students living in residence.” Other fellowship winners were from the University of Northern British Columbia, McGill University, Ryerson University, the University of Guelph, the University of Toronto, and Carleton University. [April 10/12 Daily Bulletin]

Winner of the Vale Master’s in Engineering Scholarship, Rana Tehrani Yekta, a civil engineering graduate student, joins the list of impressive women who represent the Canadian Engineering Memorial Foundation and Vale encouraging youth and promoting engineering as a profession to women across Canada. The prestigious $10,000 scholarship is awarded annually to the most promising woman in a graduate engineering program at the master’s level in Canada and comes with an invaluable work place opportunity with Vale. Tehrani Yekta was selected as the 2012 scholarship recipient for her volunteer and leadership work in the community. She has encouraged women recruitment in engineering through programs such as Go-Eng-Girl, and via her position as one of the directors of Canadian Association for Girls In Science. “Vale is honoured to support Rana as an incredible ambassador for women in engineering. Having overcome adversity including cultural and language barriers to achieve her goals, Rana truly exemplifies the traits that we look for in representatives of both Vale and the Foundation. She will be a great addition to the faces that represent the future of engineering and our team at Vale,” says Michael Gibe, Director of Workforce Planning and Talent Acquisition for Vale. Since 1990, the Foundation has been promoting engineering as a career choice for young Canadian women through its
extensive scholarship program, a website that attracts thousands for new visitors a month, social media programming, and scholarship winner presentations to high school students. [May 14/12 Daily Bulletin]

A team of mathematics undergraduate students – David Ma, Kevin Yuan, Fred Yin, Kevin Mak, and Yunfeng Liu – placed fifth overall at this year’s Rotman International Trading Competition, and was the top Canadian university in the contest. The trading competition took place over three days in late February at the University of Toronto, and, according to its website, “utilizes simulated trading cases that closely mimic different aspects of real world markets” that provide contestants with challenges that are relevant to current market trends. In addition to beating every other Canadian school, the Waterloo team finished ahead of teams from MIT, Columbia, and Duke University. [Mar. 14/12 Daily Bulletin]

A group of fourth-year School of Accounting & Finance students received top honours at the 2012 TD Financial Case Competition hosted by University of Ottawa’s Telfer School of Management. Participating teams from across Canada analysed two cases and presented their recommendations to a panel of industry professionals. Mo Du, Prasanth Pahirathan and Anqi Wang won the first place prize of $750.00. [Mar. 8/12 Daily Bulletin]

Three chemical engineering students beat out teams from across the country to win the first Walmart Green Student Challenge on February 29 at the TMX Broadcast Centre in Toronto. The fourth-year students – Arthur Yip, Jake Yeung, and Alan Thai – came out on top with their idea of an integrated energy hub for retail distribution centres. The hub is designed to integrate solar rooftop panels and be connected to the smart electricity grid to provide grid balancing and auxiliary services. There would also be considerable long-term financial savings for the company through the use of green energy and government incentives which could be provided to launch the plan. By winning the top prize the team will be flown to Calgary on the Walmart jet to tour the company’s newest distribution centre to see how their project could be implemented there. The students also won $60,000 – $30,000 of which they are donating to the chemical engineering department for future fourth-year design projects. The engineering students competed against a short list from over 80 entries from the University of Cape Breton, York University, Western University and University of Calgary. The five semi-finalists presented ideas ranging from an app to replace printed receipts to regulating temperatures in winter and summer to a panel of Canada’s top CEOs who chose the winner. [Mar. 5/12 Daily Bulletin]

Feridun Hamdullahpur
President
1. Sabbatical/Administrative Leaves/Leave Change

UW Policy 3, Sabbatical and Other Leaves for Faculty Members [excerpts below, full text available at http://www.adm.uwaterloo.ca/infosec/Policies/policy3.htm], sets out the purpose of leaves for faculty members as well as the requirements/responsibilities of faculty who are granted such leave.

The granting of a leave... depends on the University's assessment of the value of such leave to the institution as well as to the individual, and on whether teaching and other responsibilities of the applicant can be adequately provided for in her/his absence. A faculty member who is granted a sabbatical or other leave is expected to return to duties in the University for at least one year and upon return will be expected to submit a brief report to the Department Chair regarding scholarly activities while on leave.

The purpose of a sabbatical leave is to contribute to professional development, enabling members to keep abreast of emerging developments in their particular fields and enhancing their effectiveness as teachers, researchers and scholars. Such leaves also help to prevent the development of closed or parochial environments by making it possible for faculty members to travel to differing locales where special research equipment may be available or specific discipline advances have been accomplished. Sabbaticals provide an opportunity for intellectual growth and enrichment as well as for scholarly renewal and reassessment.

... the granting of sabbatical leave is contingent upon the faculty member's department being able to make the necessary arrangements to accommodate such an absence, and also upon the financial resources of the University in any given year. Should problems arise in any of the above, it may be necessary to postpone individual requests until such time as all the conditions can be satisfied.

- Sabbatical Leaves
  Abdel-Rahman, Eihab, Systems Design Engineering, September 1, 2012 to August 31, 2013 at 91.3% salary
  I am planning to spend my leave researching the coupling between electromagnetic and acoustic fields in electro-mechanical systems at large, small and micro-scales. I will apply my findings to my ongoing research program on electromagnetic and electrostatic: a) micro-electro-mechanical sensors and actuators; and b) energy harvesters.

  Anderson, William, Chemical Engineering, July 1, 2012 to December 31, 2012 at 100% salary and July 1, 2013 to December 31, 2013 at 100% salary
  I plan to catch up on research paper writing, foster new industrial research collaborations, and learn techniques in computational fluid dynamics modelling for applications in future research and teaching.

  Atlee, Joanne, Computer Science, September 1, 2012 to August 31, 2013 at 85% salary
  I plan to visit UC Santa Barbara for eight months, and spend the rest of the time with my students at Waterloo. I will be working on problems in modelling and analysis of software requirements for automotive software (as part of my APC and ORF grants). I will interact with
Prof. Tevfik Bultan, an expert in model checking at UCSB, and Prof. Richard Kemmerer, an expert in real-time modelling at UCSB.

Cheriyan, Joseph, Combinatorics and Optimization, July 1, 2012 to December 31, 2012 at 85% salary
My goal during the sabbatical is to focus on a number of on-going research projects pertaining to Approximation Algorithms for Network Design.

Clarke, Charles, Computer Science, September 1, 2012 to February 28, 2013 at 85% salary
I currently hold a Focus Award from Google to investigate personalization and privacy on mobile devices and social media, along with matching funding from the province. My plan is to remain in Waterloo and spend my time working on this research project, as well as other connected research.

Csima, Barbara, Pure Mathematics, November 1, 2012 to April 30, 2013 at 85% salary
The area of research is computability theory, focusing mainly on computable structure theory. During my leave I plan to visit collaborators at Cornell University, the University of Notre Dame, the University of California at Berkeley, and the National University of Singapore.

Culham, Richard, Mechanical and Mechatronics Engineering, May 1, 2013 to April 30, 2014 at 100% salary
Following a five-year commitment to administrative duties, I plan to re-establish my collaborative research program in thermal management of electronic systems. This will involve periodic travel to university and industry labs both domestically and internationally. The second objective is to prepare technical articles for completed or almost-completed research from the past five years.

Deadman, Peter, Geography and Environmental Management, July 1, 2012 to December 31, 2012 at 100% salary
The focus of sabbatical activities will be on two research projects. The first is exploring the use of agent based models of land use/cover change to explore the adaptive strategies of farmers to climate change in the Amazon estuary. The second project focuses on the development of an enterprise GIS data model and user tools for telecom infrastructure planning and management.

Diamond, James, Religious Studies, September 1, 2012 to August 31, 2013 at 85% salary
Research Fellow at the Tikvah Center for Jewish Law and Civilization in New York. Year will be spent pursuing research proposal which is consistent with Center aims. Those aims are to apply the insights, sensibilities, normative considerations and experiences of Jewish Civilization on law and legal issues of significant academic and social significance.

Duimering, Rob, Management Sciences, November 1, 2012 to April 30, 2013 at 100% salary
I will be preparing manuscripts for publications based on recent research on group problem solving, cognitive aspects of planning, and the relationship between human knowledge and communication. I also plan to apply for renewal of my SSHRC grant on collaborative group problem solving.

Esmaeili, Shahrzad, Mechanical and Mechatronics Engineering, January 1, 2013 to June 30, 2013 at 85% salary
The main objective of my sabbatical leave is to prepare and submit a set of journal paper manuscripts from the extensive works that currently I am directing, conducting and collaborating on in the areas of processing, characterization and properties of advanced aluminum and
magnesium alloys. I would also like to use my leave to visit my international collaborators’ labs and evaluate and discuss on-going research publications.

**Fukasawa, Ricardo**, Combinatorics and Optimization, September 1, 2012 to February 28, 2013 at 100% salary
During the sabbatical leave I intend to develop research on theory and methodology for mixed-integer programs. This includes investigating algorithmic and theoretical issues in cutting planes for general mixed-integer programs, as well as developing practical tools for solving specific types of mixed-integer programs arising from applications.

**Geelen, Jim**, Combinatorics and Optimization, January 1, 2013 to December 31, 2013 at 85% salary
I have recently completed a 12-year research program with Bert Gerards (The Netherlands) and Geoff Whittle (New Zealand). The primary goal of that project was to extend a landmark theorem in graph theory, the graph minors theorem, to matroid theory. The proof of the graph minors theorem is long (more than 500 pages), and the extension to matroids is longer. The purpose of the requested sabbatical leave is to complete the write-up of this project.

**Görecki, Tadeusz**, Chemistry, September 1, 2012 to August 31, 2013 at 100% salary
During my sabbatical leave I will foster my existing international collaborations and initiate new ones. The main focus of my research will be comprehensive two-dimensional gas chromatography, especially as applied to the characterization of natural products and field applications. I plan to visit Gdansk University of Technology, Stellenbosch University and the University of Tasmania.

**Guild, Paul**, Management Sciences, September 1, 2012 to August 31, 2013 at 100% salary
The plan is to accelerate the rate of research output – working with four doctoral students in the general area of innovation, entrepreneurship and commercialization of results from publicly-funded research. Particular attention will be paid to strategies for dissemination of new learning from research.

**Kempf, Achim**, Applied Mathematics, November 1, 2012 to April 30, 2013 at 100% salary
I will pursue research in the field of relativistic quantum information with Profs. Tim Ralph and Gerard Milburn at the University of Queensland, Australia. A particular focus of the planned research will be the extraction of quantum entanglement, which is a key resource for quantum computing, from the field vacuum states. I am also planning to work on a textbook on quantum theory.

**Kuzniar, Alice**, Germanic and Slavic Studies, January 1, 2013 to December 31, 2013 at 85% salary
With the support of the Alexander von Humboldt Foundation I will conduct research in Germany on my next book, German Romanticism as the Vital Life Force of Homeopathy. During my sabbatical I shall finish this manuscript on the intellectual and aesthetic influences of German Romanticism on the founder of homeopathy, Samuel Hahnemann.

**Lee, Sonny**, Chemistry, September 1, 2012 to August 31, 2013 at 94.7% salary
Recent progress in my laboratory has provided the first model for the heteroligated cluster environment responsible for biological nitrogen fixation, and this advance opens new directions for research in this area. I intend to spend my sabbatical leave exploring these directions with my research group and with international collaborators.
Lupascu, Adrian, Physics and Astronomy, November 1, 2012 to April 30, 2013 at 100% salary

Dedicate time to develop new ideas on quantum error correction with superconducting qubits. Explore possibilities to encode quantum information to eliminate errors. Further develop hybrid systems consisting of superconductor and semiconductors. During my leave my lab will move from RAC to QNC and I will take on one or two new graduate students. Attending a workshop at KITP Santa Barbara.

Marsden, Mungo, Biology, September 1, 2012 to August 31, 2013 at 85% salary

I will be visiting labs in the USA to learn techniques to produce monoclonal antibodies. These antibodies are key reagents in my research and the ability to make them in house will remove a bottleneck in our research. In the process I will continue to develop international research collaborations. I will also use the time to reorganize my undergraduate courses.

Martin, James, Physics and Astronomy, September 1, 2012 to February 28, 2013 at 85% salary

My plan is to continue our studies at Waterloo of the electric fields near metal surfaces using laser cooled atoms and Rydberg atom spectroscopy. The sabbatical will give me time to fully concentrate on laboratory work.

Mavaddat, Farhad, Computer Science, May 1, 2012 to April 30, 2013 at 90.6% salary

I plan to continue my research in multi-core parallelism, focusing on the detection problem and on the design of parallel languages. I will be based in Waterloo, but will make a number of multi-week visits to researchers in my field at WRI (Amsterdam), UCSB (Santa Barbara), Control Group, Teledyne Corp. (Los Angeles) and HK Polytechnic (Hong Kong).

McCarville, Ron, Recreation and Leisure Studies, September 1, 2012 to August 31, 2013 at 100% salary

I plan to explore the dynamics within the service encounter between providers and clients. First, I will explore the influence on supervisory style on organizational citizenship behaviour (OCB) in a local service organization. Second, I plan to use role theory in monitoring how consumers might be encouraged to aid in service delivery (called co-production).

McColl, Stephen, Public Health and Health Systems, July 1, 2012 to December 31, 2012 at 100% salary

During my sabbatical I plan to: 1) research – continuation of current research program on health hazards of renewable energy; 2) graduate supervision – co-supervisor with P. Bigelow (two PhD student thesis projects); and 3) teaching – updating and revision of PHS 604, PHS 624 courses for MPH online learning program.

Moraru, Ruxandra, Pure Mathematics, July 1, 2012 to December 31, 2012 at 85% salary

I will continue my research on the geometry of holomorphic vector bundles and moduli spaces of Hermitian-Einstein connections on non-Kähler complex manifolds. I plan to visit collaborators at the University of Oxford, the Laboratory of Algebraic Geometry and its Applications (Moscow), and the Instituto Nacional de Matemática Pura e Aplicada (Brazil). The rest of my sabbatical will be spent in Waterloo.

Moresoli, Christine, Chemical Engineering, September 1, 2013 to August 31, 2014 at 85% salary

Pursue research activities in food process modeling, filtration processes (water and bioproducts) and bioproducts development (antioxidants, composite materials, protein films, monoclonal antibodies); prepare the renewal of my NSERC Discovery grant; explore new collaborations with research groups at NTNU (Norway), ENITIAA-Ecole des Mines (France), Karl Ruhr (Germany).
Ng, Che Tat, Pure Mathematics, September 1, 2012 to August 31, 2013 at 97.5% salary
I will continue my research on the theory and applications of functional equations. The conjoint measurement model is a rich ground for the use of functional equations. I may visit my collaborators in the preparations of a new handbook in mathematical psychology. Most of my leave will be spent in Waterloo.

Nooijen, Marcel, Chemistry, September 1, 2012 to August 31, 2013 at 100% salary
I plan to spend time at the Max Planck Institute at Mülheim, working in the group of Dr. Neese, developing new ideas in electronic structure theory and implementations in the ORCA program system. I also plan to visit the University of Heidelberg, pursuing nuclear dynamics within the MCTDH program. I will also visit the Ruud group in Tromso, Norway to collaborate on a joint project involving vibronic coupling.

North, John, English Language and Literature, July 1, 2012 to December 31, 2012 at 85% salary
I plan to publish The Waterloo Directory of Welsh Newspapers and Periodicals, 1800-1900, in print and online. This is an enumerative, description and analytical bibliography covering all languages, done in co-operation with the National Library of Wales. It follows the 64 volumes of Scottish, Irish and English directories.

Oakman, Jonathan, Psychology, September 1, 2012 to February 28, 2013 at 100% salary
My goal for this sabbatical is to prepare two grant applications, one concerning the analysis of single-case research designs, and one concerning the treatment of recurrent nightmares. I also plan to revise my undergraduate and graduate courses such that they involve less lecturing and include more “learning by doing.”

Prouzet, Eric, Chemistry, September 1, 2012 to August 31, 2013 at 85% salary
Develop new research topics “catalysis-on-the-chip,” “bio based chemistry for nanocomposites” and “new materials for chromatography.” Reinforce current international collaborations with International Doctoral School on Functional Materials; conduct a project on bio-based chemistry; visit U. Bordeaux. Develop an eLearning platform with European partners; develop bio-based program for chemistry; create an “iBook” in Material Chemistry.

Quadrilatero, Joe, Kinesiology, July 1, 2012 to December 31, 2012 at 100% salary
During my proposed sabbatical I will complete several manuscripts related to my cell death research. I will prepare a HSFC grant focusing on cell death mechanisms in muscle during hypertension. Furthermore, I will prepare a CIHR grant on the role of ARC on muscle cell death/function. Finally, I will upgrade the content of my muscle physiology and muscle aging/disease courses.

Reed, Bruce, Biology, September 1, 2012 to August 31, 2013 at 96.1% salary
This sabbatical leave will be used to establish collaborative research projects, and to develop expertise in the generation and analysis of high throughput genomic and proteomic data sets. The latter experience will be useful in developing a competitive proposal for acquiring additional research funding, which is also a goal I wish to achieve during this sabbatical leave.

Rothenburg, Leo, Civil and Environmental Engineering, July 1, 2012 to June 30, 2014 at 100% salary
I intend to complete a monograph, “Micromechanics of Granular Materials,” which relates to my core research area, and will start another book, “Rock Mechanics of Salt and Potash”
Mining.” This topic reflects a more practical part of my research activities where I developed unique expertise in modeling.

Salem, Kenneth, Computer Science, September 1, 2012 to August 31, 2013 at 85% salary
During my leave I plan to visit the Dept. of Computer Science at the Univ. of California, Santa Barbara. At UCSB, I will be continuing my current work on cloud computing, and in particular on providing reliable, scalable data services to support cloud applications. I expect to collaborate with UCSB researchers working in related areas of database management and distributed computing.

Thomson, Neil, Civil and Environmental Engineering, November 1, 2012 to April 30, 2013 at 100% salary
This much needed sabbatical leave will provide me with the opportunity to finish writing manuscripts, substantially complete several field-related research projects on environmental fate of contaminants in subsurface systems, development assessment of soil and groundwater remediation technologies and simulations models, and to pursue research collaborations with colleagues in Brazil. I will also use this time to support several of my graduate students to complete their theses. Finally, as the Editor and Chief of Ground Water Monitoring and Remediation, I will develop and promote a renewed scope for this publication.

• Sabbatical Leave Change
  Piérard, Emmanuelle, Economics, change from July 1, 2012 – December 31, 2012 at 85% salary to July 1, 2013 – December 31, 2013 at 85%.

• Administrative Leaves
  Culham, Richard, Mechanical and Mechatronics Engineering, January 1, 2013 to April 30, 2013 at 100% salary
  [See description above, sabbatical leave May 1, 2013 to April 30, 2014.]

  Paré, François, French Studies, January 1, 2013 to April 30, 2013 at 100% salary
  The proposed leave of absence is to complete the final three chapters of my book on memory and name in Francophone literatures (Quebec and Caribbean), due to be published at Éditions David in 2013, and to advance my project (SSHRC funding to be determined) on early literary texts in Ontario (1637-1761) with primary focus on the French traveller Louis Hennepin.

FOR INFORMATION

2. Administrative Appointments
  Backhouse, Chris, appointment as Director, Nanotechnology Engineering, Faculty of Engineering, May 1, 2012 to April 30, 2015.

  Burn, Donald, appointment as Acting Chair, Civil and Environmental Engineering, Faculty of Engineering, May 1, 2012 to April 30, 2013.

  Casello, Jeffrey, appointment as Associate Dean, Undergraduate Studies and Educational Liaison, Faculty of Environment, July 1, 2012 to December 31, 2012.

  Croiset, Eric, appointment as Chair, Chemical Engineering, Faculty of Engineering, May 1, 2012 to April 30, 2016
Hall, Roland, appointment as Associate Dean, Graduate Studies, Faculty of Science, May 1, 2012 to June 30, 2012.

Hanning, Rhona, appointment as Associate Dean, Graduate Studies, Faculty of Applied Health Sciences, September 1, 2012 to August 31, 2013.

Lemieux, Christiane, appointment as Interim Chair, Statistics and Actuarial Science, Faculty of Mathematics, July 1, 2012 to August 31, 2013.

Thomson, Neil, appointment as Chair, Civil and Environmental Engineering, Faculty of Engineering, May 1, 2013 to April 30, 2016.

Warley, Linda, appointment as Associate Dean, Graduate Studies, Faculty of Arts, July 1, 2012 to June 30, 2016.

Administrative Appointment Changes

Muirhead, Bruce, appointment as Associate Dean, Graduate Studies and Research, Faculty of Arts, from May 1, 2008 - April 30, 2012 to May 1, 2008 – June 30, 2012.

Paré, François, appointment as Interim Chair, French Studies, Faculty of Arts, from May 1, 2012 – August 31, 2012 to May 1, 2012 to July 31, 2012.

Poirier, Guy, appointment as Chair, French Studies, Faculty of Arts, from September 1, 2012 – August 31, 2014 to August 1, 2012 to August 31, 2014.

Feridun Hamdullahpur
President
FOR INFORMATION

Introduction
I would like to take a new approach to my President’s Report and use it as a platform to engage you in a conversation about the direction of the University of Waterloo as well as keep you up to date on recent events and activities.

Discussion Question
The University of Waterloo is in a good position as an innovative, collaborative, and connected institution, but we cannot rest on our laurels. What will it take for the university to further its innovation strategy to remain competitive in a rapidly changing economic environment?

Internal Relations (Administration)
I am pleased to welcome our new chair of the Board of Governors, the Honourable Kevin G. Lynch, whose term began on May 1. At the same time I would like to thank Bob Harding for his years of service as chair of the board.

The spring is an era of new beginnings as the university as we welcome Vice-President, Academic and Provost Sallie Ann Keller, Vice-President, University Relations Tim Jackson, and Associate Provost, Students Chris Read, whose terms all began May 1.

We announced the appointment of Kenneth McGillivray as Vice-President, Advancement, beginning August 1, and we will also welcome Secretary of the University Logan Atkinson and Dean of Engineering Pearl Sullivan on July 1. In addition, Katherine M. Bergman has been announced as St. Jerome’s University’s 7th President and Vice-Chancellor, with a start date of August 1.

On Friday, April 27, the Canadian Association of University Teachers (CAUT) debated and passed a motion to initiate a process of censure against the administrations of our university and Wilfrid Laurier University regarding our partnerships with the Centre for International Governance Innovation (CIGI). Both universities released a joint statement indicating our strong disagreement with CAUT’s position. Both institutions are firmly committed to protecting academic freedom and integrity. The Balsillie School of International Affairs’ governance document protects academic freedom, academic program governance, and faculty working conditions by keeping them completely within the universities and separate from third-party influence and the document was developed through a rigorous process with full stakeholder engagement and significant faculty consultation. As this was a motion to initiate a process of censure and not a motion of censure itself, we look forward to the opportunity for further discussion with CAUT that will lead to a clearer understanding of the facts and issues involved. It is worth noting that the Waterloo faculty association voted against the motion.

Our 2012 Spring Town Hall was held on May 9. I will give an overview of the event at the meeting.

From May 26 to June 2, the University of Waterloo, along with Wilfrid Laurier University, will host Congress 2012 of the Humanities and Social Sciences, the largest annual multidisciplinary academic gathering in Canada. I will present highlights from this event, which draws delegates from every province and territory and from around the world, at the meeting.

University Relations (International)
In early April I was pleased to welcome a delegation from Nanjing University, led by its chancellor Yinxing Hong, as the University of Waterloo and Nanjing University renewed the Sino-Canadian College agreement for another five years. The delegation also visited the Confucius Institute (of which Nanjing University is a partnering institution) at Renison University College, and held events promoting information for students on research, academic credit, and non-credit program opportunities at Nanjing
University. Waterloo was the only Canadian university visited by the Nanjing delegation, which also stopped at the University of California (Berkeley) and Johns Hopkins University, as well as the Chinese embassy in Ottawa, where Governor General of Canada David Johnston was given an honorary doctorate.

I delivered a keynote address at the 3rd International Exhibition and Conference on Higher Education in Saudi Arabia and participated in several meetings with Saudi universities. I signed an agreement with King Saud University that involves joint research and commercialization opportunities and an international exchange for faculty members and non-degree graduate students.

I also had the pleasure of participating in an educational mission to Brazil with 29 other university leaders led by Governor General David Johnston and organized by the Association for Universities and Colleges of Canada (AUCC). Outcomes include the signing of a research agreement with the University of São Paulo that will link Canadian and Brazilian researchers and students in investigating issues related to water science, engineering, technology and management. On the industry side, I attended meetings with Braskem, the largest petrochemical company in the Americas (by production) to discuss opportunities for research and collaboration. In addition, I signed an agreement with Vale, the second largest mining company in the world, to explore collaborative research and development projects.

Brazil is home to the world’s sixth largest economy and has emerged as an important trading partner with Canada. It is a strategic area for us and we enjoy partnerships with several Brazilian universities. We will continue to develop these strategic partnerships.

Further updates on these international activities will be provided at the meeting.

**In the News**
The Waterloo Region Record published my editorial, “Balsillie Hasn’t Impinged on Academic Freedom,” on Saturday, May 12.

The University of Waterloo was also featured in the Globe and Mail’s Report on Business “Giving Back” philanthropy report on Saturday, May 12 for the recent naming of the Mathematics 3 atrium (http://newsrelease.uwaterloo.ca/news.php?id=5395) in honour of retired high school math teacher Bruce White. One of White’s former students and uWaterloo alumnus John Hele made a donation, matched by his employer, Arch Capital Group, citing White’s influence on him as a high school student.

Below is a sample of recent news releases.

- **New Public Health School Established to Address Growing Health Crisis** (http://newsrelease.uwaterloo.ca/news.php?id=5387): The University of Waterloo’s School of Public Health and Health Sciences was launched April 19. This transdisciplinary initiative is built around six critical health care challenges, breaking down traditional academic barriers and bringing faculty, students, and researchers together to find more efficient and timely solutions to health problems.

- **Help to quit smoking? The University of Waterloo’s got an app for that** (http://newsrelease.uwaterloo.ca/news.php?id=5391): Waterloo’s Propel Centre for Population Health Impact released its “Crush the Crave” app for mobile devices on April 26. The project was supported by Health Canada and “Leave the Pack Behind,” a provincial awareness program. This project fuses scientific evidence with innovative technology to help young Canadians quit smoking.

- **Laurier and Waterloo respond to CAUT motion** (http://newsrelease.uwaterloo.ca/news.php?id=5397): The University of Waterloo and Wilfrid Laurier University are firmly committed to protecting academic freedom and are in strong disagreement with the motion to initiate a process of censure against the administrations of our institutions passed by the Canadian Association of University Teachers at its national council meeting of Friday, April 27. The Balsillie School of International Affairs governance document was developed through a rigorous process with stakeholder engagement and faculty consultation.

Feridun Hamdullahpur
President
FOR INFORMATION

President's Priorities, 2012-13
The goals and priorities outlined below should be understood as ones involving not only the president but also those of the entire senior administration.

These goals and objectives set for 2012-13 are congruent and consistent with those that had been identified for last year. They are also informed by the Key Goals emerging from Phase 1 of the Sixth Decade Plan Mid-cycle Review process and provide better continuity between past and present.

- Key Goals:
  - Advance quality of education
    - Innovation every day and everywhere
  - Advance research excellence and impact
  - Enhance student opportunities and experience

Tier 1 Priorities
- Develop New or Revised Key Performance Indicators to Ensure UW's Place Among the Top Universities in the World

- Increase Income from all Sources, Reduce Cost: Financial Stability
  - Conduct an external review of operational and functional efficiency of all academic and non-academic offices
  - Develop an effective budget model (provost, together with the vice-president, administration & finance to lead this initiative)
  - Maximize provincial monies
  - Fundraising and alumni relations
    - Develop a new fundraising plan
    - Continue working with current donors
    - Expand donor base/identify new local, national, international donors
    - Review the development office structure/team (on-going)

- Conclude the Academic Planning Exercise: MCR Stage Two
  - Recruit expert teams/focus groups
  - Develop action plans with individual, unit based academic and non-academic strategic plans and accountability framework with: goals, objectives, actions, measurable outcomes, responsibilities and timelines
  - Senior leadership endorses action plans and accountability framework (Fall 2012 final approval by the board)

- Satellite Campuses
  - Continue building more capacity, academic and research programs in Dubai, Stratford, Huntsville, Kitchener and Nanjing

- Facilitate Transitioning of the New Senior Team
Tier 2 Priorities

- Improved Community Relations
- Targeted Government Advocacy and Institutional Relations Activity
- Further Internationalization Progress
- University Governance, Planning, Decision Making
- Board of Governors Retreat in September 2012
- Centre of Excellence for Aging
- CISCO Systems: chairs, classrooms
- Stratford: repositioning, restructuring, leadership planning
- Balsillie School of International Affairs (BSIA): governance, executive director search, finances
- Finalize and Open Quantum-Nano Building
- New Building Projects: Needles Hall extension, day care, Student Life Centre, residence
- Student Mental Health
- Graduate Studies: current shortfall, long-term planning, student support
- Salary System/Structure for Non-academic Managers
- Mentoring/Coaching: department chairs/directors, new faculty/staff
- School of Optometry Review: IOBP review, search for a new director
- Health Sciences Campus: Pharmacy Program – next steps/initiatives, McMaster Medical School – synergies

Feridun Hamdullahpur
President
FOR APPROVAL

Amendments to the Memorandum of Agreement

Motion: To approve amendments to the Memorandum of Agreement between the Faculty Association of the University of Waterloo and the University of Waterloo [see below].

Background: The report of the Working Group on Faculty Annual Performance Evaluation contained a number of recommendations that require changes to the Memorandum of Agreement.

These changes have been approved by Deans’ Council, the Faculty Relations Committee and the membership of the Faculty Association.

Amendments: (New text is underlined, deletions are struck through)

1. PREAMBLE

1.7 In this Agreement, for academic units, Chair refers to Chair or Director, and Department refers to Department or School.

13. FACULTY SALARIES, ANNUAL SELECTIVE INCREASES AND MEMBER EVALUATION PROCEDURES

13.5 Member Evaluation

13.5.1 (a) Each Faculty shall have Faculty Performance Evaluation Guidelines setting out the evaluation criteria for that Faculty. The Guidelines shall be consistent with this Agreement and with the evaluation criteria in Policy 77, and shall be made available to all Members prior to the commencement of the calendar year being evaluated. If there is a conflict between the Guidelines and this Agreement (or the criteria in Policy 77), the provisions in the Agreement (or the criteria in Policy 77) shall take precedence.

13.5.1 (b) Each Department shall have an Addendum to their Faculty Performance Evaluation Guidelines setting out the performance expectations in the Department for scholarship, teaching, and service. The Addendum shall be consistent with this Agreement (and the evaluation criteria in Policy 77) and with the Guidelines. The Addendum shall be annually reviewed and updated, and changes shall be approved by a vote of members of the Department before the commencement of the evaluation calendar year to which it would apply. If there is a conflict between the Addendum and the Guidelines, or between the Addendum and this Agreement (or the criteria in Policy 77), precedence shall be given first to this Agreement (or the
Each Member shall receive an annual performance evaluation based upon
documentation provided by the Member, submitted in the format and by the
deadline specified in the Faculty Performance Evaluation Guidelines. A Member
who does not submit the required documentation by the specified deadline
normally will receive an overall rating of at most 0.5 as specified in 13.5.3.

Members shall provide documentation for the calendar year under evaluation plus
the number of previous years specified by their Faculty Guidelines. Scholarship
shall be assessed on the total evidence from a window of two, three, or four years.
Teaching and service shall be assessed on the evidence from the year under
evaluation. The remaining documented years shall provide context to the assessed
evidence.

Each Member shall receive one of the following nine numerical performance ratings in
each of teaching, scholarship and service:

2.0 Outstanding
1.75 Excellent
1.5 Very Good
1.25 Good
1.0 Satisfactory
0.75 Needs Some Improvement
0.5 Needs Improvement
0.25 Needs Major Improvement
0.0 Unsatisfactory

Performance ratings shall pertain to the portion of the evaluation year during which
the Member was a paid employee of the University, including sabbatical leave, but
excluding pregnancy, adoption, parental, or sick leave.

For newly appointed Members, and for Members on paid or unpaid leave, it may not
be possible to assess performance in all three categories during the evaluation year.
In these cases only, the practices described in 13.5.1, 13.5.2, and 13.5.3 may be
amended as follows: (1) A newly appointed Member shall receive, in any category
where assessment is not possible, a rating equal to the average rating of Members in
the Department who hold the same rank; (1) A newly appointed Member shall
receive a rating of 1.0 (satisfactory) in any category where assessment is not
possible; and (2) A continuing Member who has been on leave shall receive the
average of up to the three previous years' ratings in any category where assessment is
not possible as a result of the leave.

In situations where a Member has held a fractional load appointment, or has taken a
leave of absence, in the period for which evaluation data is being considered,
expectations for quality shall remain the same but expectations for quantity shall be
13.5.5 (a) The overall rating (R) for each Member shall be computed as the weighted average of the individual ratings in teaching, scholarship and service for that year. The weight for each area shall be as specified in the member’s letter of appointment. In the absence of specified weights for professorial positions, the normal weights shall be 40 percent for teaching, 40 percent for scholarship, and 20 percent for service; for lecturer positions, the normal weights shall be 80 percent for teaching and 20 percent for service. These default weights do not apply to lecturer appointments made prior to May 1, 2008, and existing weights remain in effect for the duration of the appointment unless otherwise changed under sub articles (b) and (c). There is no intended linear relationship between the percent for teaching and the number of courses taught.

(b) Weightings and duties may be adjusted in a formal agreement between the Member and the Chair with the approval of the Dean. The weights shall be at least 20 percent in every category, except in the case of lecturer appointments. Weight redistribution does not modify the performance quality expected in any of the three areas, though expectations for quantity will change.

(c) Any such formal agreement under 13.5.5 (b) shall be by mutual consent and, except in the case of definite-term appointments, shall be for a period of up to 5 years but no less than 2 years. Such an agreement may be renewed by mutual consent.

(d) The performance evaluation of a Member shall be done with all evaluators being informed of the weights in each area, and any adjustments made to the weights in each area, over the entire period for which evaluation data is being considered. Each Member shall be informed of the weight information used in their evaluation. The Chair shall collect and provide this weight information, which must be consistent with sub article (a) and any adjustments made under sub articles (b) and (c).

13.5.6 (a) The Chair has the responsibility for annual performance evaluations of all Members in the Department. The Chair shall inform the Dean of the proposed ratings in the three categories and overall.

(b) For Departments with 15 or fewer full-time equivalent regular faculty positions, the Members of the Department shall decide by majority vote whether to elect an advisory committee of no more than five Members to assist the Chair in carrying out the responsibility in 13.5.6 (a). A common committee spanning two or more small Departments may be considered.

(c) For Departments with more than 15 full-time equivalent regular faculty positions, the Members of the Department shall elect an advisory committee of no more than five Members to assist the Chair in carrying out the responsibility in 13.5.6 (a).
The Chair has the responsibility for annual performance evaluations of all members in the Department. The Members in the Department shall decide by majority vote whether to elect an advisory committee of no more than five Members to assist the Chair in carrying out this responsibility. The Chair shall inform the Dean of the proposed ratings in the three categories and overall.

*Chair also means Director; Department also means School.

Sallie Ann Keller
Vice-President, Academic & Provost
### UNIVERSITY OF WATERLOO

#### 2012/13 Operating Income Budget

**Board, June 5/12**

<table>
<thead>
<tr>
<th>INCOME</th>
<th>2011/12 Base</th>
<th>Estimated 12/13 % Increase</th>
<th>Estimated 12/13 $ Increase</th>
<th>2012/13 Base</th>
<th>Notes</th>
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<td>(10,984)</td>
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<td><strong>Total Operating Grant</strong></td>
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<td><strong>Tuition</strong></td>
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<td>Undergraduate</td>
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### NOTES TO 2012/13 OPERATING INCOME

[1] The allocation is based on projected Fall 2012 FTE growth over the Fall 2007 FTE base. We assume that the Ministry of Training, Colleges and Universities (MTCU) will fund all growth up to the graduate enrolment growth targets.

[2] The allocation is based on receiving full funding for the projected growth in 2012/13. As per the Ontario Budget 2012 presented on March 27, 2012, the provincial government may not provide full funding per student for enrolment growth.

[3] The $20.4M increase in undergraduate tuition is a result of continued international growth and modest domestic growth. Tuition rate increases for new domestic students are 4.5% in regulated programs, 6.5% in deregulated programs, and 3% for international students.

[4] The $4.9M increase in graduate tuition reflects a 3% rate increase for most students and continued enrolment growth to meet MTCU grant targets and sixth decade goals.
<table>
<thead>
<tr>
<th>Expenses</th>
<th>2011/12</th>
<th>Estimated</th>
<th>2012/13</th>
<th>2012/13</th>
<th>2012/13</th>
<th>% of Income</th>
<th>Notes</th>
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<td>Base</td>
<td>Incr</td>
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<td>One-Time</td>
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<td>$000</td>
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<td>$000</td>
<td>$000</td>
<td>$000</td>
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<td>Salary and Wages</td>
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<td>Salary savings from faculty retirements/terminations</td>
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<td>Benefits</td>
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<td>Student Support</td>
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<td>Senate matching scholarships</td>
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<td>Support for international graduate students</td>
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<td>Differential tuition</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate international growth</td>
<td>762</td>
<td></td>
<td>762</td>
<td></td>
<td>762</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate course based masters</td>
<td>987</td>
<td></td>
<td>987</td>
<td></td>
<td>987</td>
<td></td>
<td></td>
</tr>
<tr>
<td>International tuition</td>
<td>3,060</td>
<td></td>
<td>3,060</td>
<td></td>
<td>3,060</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate enrolment expansion</td>
<td></td>
<td>4,057</td>
<td></td>
<td>4,057</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total income sharing</td>
<td>10,483</td>
<td></td>
<td>10,483</td>
<td>10,483</td>
<td>1.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-total</td>
<td>393,904</td>
<td>10.6</td>
<td>41,810</td>
<td>435,714</td>
<td>435,714</td>
<td>78.3</td>
<td></td>
</tr>
</tbody>
</table>
## UNIVERSITY OF WATERLOO
### 2012/13 Operating Expense Budget

**Board, June 5/12**

<table>
<thead>
<tr>
<th>Item</th>
<th>2011/12 Base 12-02-07</th>
<th>Estimated % Incr (Decr)</th>
<th>2012/13 $ Incr (Decr)</th>
<th>2012/13 2012/13 % of Total</th>
<th>% of Income</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$000</td>
<td>$000</td>
<td>$000</td>
<td>$000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic development fund</td>
<td>5,617</td>
<td></td>
<td>5,617</td>
<td>5,617</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Access for disabled</td>
<td>713</td>
<td></td>
<td>713</td>
<td>713</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>Base budget adjustment to reflect overhead costs</td>
<td>3,853</td>
<td></td>
<td>3,853</td>
<td>3,853</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Contingency reserve</td>
<td>1,000</td>
<td></td>
<td>1,000</td>
<td>1,000</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Endowment investment shortfall</td>
<td>1,500</td>
<td></td>
<td>1,500</td>
<td>1,500</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Faculty recruitment and retention</td>
<td>1,635</td>
<td></td>
<td>1,635</td>
<td>1,635</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Graduate programs holdback</td>
<td>10,935</td>
<td>(3,272)</td>
<td>7,663</td>
<td>7,663</td>
<td>1.4</td>
<td>[4]</td>
</tr>
<tr>
<td>Insurance</td>
<td>1,800</td>
<td></td>
<td>1,800</td>
<td>1,800</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>International fund</td>
<td>1,769</td>
<td>765</td>
<td>2,534</td>
<td>2,534</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Library acquisitions</td>
<td>7,519</td>
<td></td>
<td>7,519</td>
<td>7,519</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Municipal taxes</td>
<td>2,245</td>
<td></td>
<td>2,245</td>
<td>2,245</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Quality improvement fund</td>
<td>2,637</td>
<td>138</td>
<td>2,775</td>
<td>2,775</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Undergraduate programs holdback</td>
<td>21,329</td>
<td>951</td>
<td>22,280</td>
<td>22,280</td>
<td>4.0</td>
<td>[5]</td>
</tr>
<tr>
<td>Utilities</td>
<td>15,450</td>
<td></td>
<td>15,950</td>
<td>15,950</td>
<td>2.9</td>
<td>[6]</td>
</tr>
<tr>
<td>Sub-total</td>
<td>78,002</td>
<td>(1.2)</td>
<td>(918)</td>
<td>77,084</td>
<td>13.9</td>
<td></td>
</tr>
<tr>
<td>Supplies and expenses</td>
<td>57,682</td>
<td></td>
<td>503</td>
<td>58,185</td>
<td>10.4</td>
<td>[7]</td>
</tr>
<tr>
<td>Allowance to off-set future expenditure reductions</td>
<td>3,000</td>
<td>(3,000)</td>
<td>0</td>
<td>(4,533)</td>
<td>(0.8)</td>
<td>[8]</td>
</tr>
<tr>
<td>Expenditure reduction at 2.0%</td>
<td></td>
<td></td>
<td></td>
<td>(4,533)</td>
<td>(0.8)</td>
<td></td>
</tr>
<tr>
<td>Gross expenses</td>
<td>532,588</td>
<td>6.4</td>
<td>33,862</td>
<td>566,450</td>
<td>101.8</td>
<td></td>
</tr>
<tr>
<td>Cost recoveries and chargeouts</td>
<td>(10,799)</td>
<td></td>
<td>(10,799)</td>
<td>(10,799)</td>
<td>(1.9)</td>
<td></td>
</tr>
<tr>
<td>Manageable allowance</td>
<td>(500)</td>
<td></td>
<td>(500)</td>
<td>(500)</td>
<td>(0.1)</td>
<td></td>
</tr>
<tr>
<td>Estimated net expenses</td>
<td>521,289</td>
<td>6.5</td>
<td>33,862</td>
<td>555,151</td>
<td>99.8</td>
<td></td>
</tr>
<tr>
<td>Estimated income</td>
<td></td>
<td></td>
<td></td>
<td>556,340</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excess income over expenses</td>
<td></td>
<td></td>
<td></td>
<td>1,189</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NOTES TO THE 2012/13 OPERATING EXPENSE BUDGET

[1] The increase to salary and wages includes funding for new faculty and staff positions, estimated salary increase costs based on salary settlements in place for 2012/13 and ongoing clawback savings on faculty terminations/retirements, net of estimated over F costs.

[2] The 10.5% increase in current benefits includes: an increase in the university’s contribution to the registered pension plan from 155% to 165% of employee contributions - 2.7%; benefits costs for new faculty and staff positions - 2.8%; rate and premium changes in employer contributions for dental coverage, life insurance, CPP, employment insurance and workplace safety insurance - 1.7%; and, costs associated with salary increases - 3.3%.

[3] The ongoing income sharing balances represent additional amounts available in 2012/13 for distribution. Income sharing for existing programs is allocated to the faculties on a slip-year basis. New graduate growth allocations were introduced in 2006/07 to recognize growth in intake and overall FTEs and are funded on a calendar-year basis. The ongoing cumulative income sharing amounts, including additional amounts for 2012/13, from inception to date, are as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>$000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differential tuition</td>
<td>15,220</td>
</tr>
<tr>
<td>Graduate expansion (ended 2004/05)</td>
<td>2,727</td>
</tr>
<tr>
<td>Graduate growth (started 2005/06)</td>
<td>7,614</td>
</tr>
<tr>
<td>Graduate international growth</td>
<td>2,233</td>
</tr>
<tr>
<td>Undergraduate enrolment expansion</td>
<td>35,478</td>
</tr>
<tr>
<td>International tuition</td>
<td>24,633</td>
</tr>
<tr>
<td>Graduate course based masters</td>
<td>3,876</td>
</tr>
<tr>
<td>Total</td>
<td>91,781</td>
</tr>
</tbody>
</table>

To accommodate growth, academic support units receive supplemental budget increases.

[4] Graduate programs holdback is a portion of the grant and tuition related to growth and held at the centre to support graduate expansion. The institution did not meet the 2011/12 graduate eligible enrolment target. The $3.3M graduate net revenue decrease reflects the resulting adjustment in the 2012/13 enrolment projections.

[5] Undergraduate programs holdback relates to emerging programs which are considered to be incremental to the current activity of the institution/faculty. Grant and tuition generated from the program during the start-up period is held at the centre and managed by the Provost. Funds are released as required to support the start-up costs. Once the program is determined to have reached steady-state, budget for the program will be transferred to the home faculty through the current income sharing mechanisms in place. In 2012/13 the emerging programs are Nanotechnology Engineering, Management Engineering, Pharmacy, International Development, Knowledge Integration, Global Business and Digital Arts (Stratford), and WatPD.
NOTES TO THE 2012/13 OPERATING EXPENSE BUDGET

[6] The utilities increase is due to new buildings and rate changes for natural gas and electricity.

[7] Supplies and expenses is the total of non-salary budgets in faculties and academic support units that are not specifically identified elsewhere in the budget. Based on 2010/11 actual expenses, included in this number are the following items:

<table>
<thead>
<tr>
<th>Category</th>
<th>$millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment, maintenance and rentals</td>
<td>12.7</td>
</tr>
<tr>
<td>Supplies</td>
<td>8.9</td>
</tr>
<tr>
<td>Travel and hospitality</td>
<td>9.9</td>
</tr>
<tr>
<td>Contracted services</td>
<td>5.8</td>
</tr>
<tr>
<td>Computing, including software</td>
<td>4.6</td>
</tr>
<tr>
<td>Purchases for resale</td>
<td>4.5</td>
</tr>
<tr>
<td>Telephone</td>
<td>2.6</td>
</tr>
<tr>
<td>Consulting</td>
<td>3.4</td>
</tr>
<tr>
<td>Printing</td>
<td>2.4</td>
</tr>
<tr>
<td>Postage</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56.9</strong></td>
</tr>
</tbody>
</table>

[8] The allowance to off-set future expenditure reductions will be used to fund new positions and this amount has been transferred to current salaries and wages.

[9] A 2% expenditure reduction is allocated across all academic units resulting in a savings of $4.5M.
FOR APPROVAL

Changes to Incidental Fees

Federation of Students Fee
Motion: To approve that the compulsory Federation of Students Fee, assessed and collected from all full-time undergraduate students, be increased from $39.85 per term to $44.80 per term effective September 2012 (fall term).

Comments:
- The previous fee increase was $0.90 per term effective September 2011
- The 2012 increase of $4.95 per term has two components: CPI + $3.95 approved by a vote of students
- Payment of the fee is a requirement of registration and is non-refundable

Federation of Students Administered Fee
Motion: To approve that the Federation of Students Administered Fee be increased to reflect changes to the health, dental and U-Pass components effective September 2012 (fall term).

<table>
<thead>
<tr>
<th></th>
<th>Dental</th>
<th>Health</th>
<th>U-Pass</th>
<th>SRP</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>$46.51</td>
<td>$51.25</td>
<td>$67.84</td>
<td>$1.00</td>
<td>$166.60</td>
</tr>
<tr>
<td>Co-op</td>
<td>$83.63</td>
<td>$94.81</td>
<td>$67.84</td>
<td>$1.00</td>
<td>$247.28</td>
</tr>
</tbody>
</table>

Comments:
- SRP = Student Refugee Program
- The Federation of Students has contracted with StudentCare for the health and dental components and with Grand River Transit for the bus pass component
- The university assesses the fee on behalf of the Federation of Students and transfers the funds to the Federation of Students for disbursement
- Payment of the fee is a requirement of registration; the health and dental components are refundable through the Federation of Students and their service provider; the bus pass is non-refundable; the Student Refugee Program is refundable directly through the Federation of Students
- During the winter term, regular students pay twice the rate for health and dental to continue coverage from May to September
- The health and dental components both increase 2.5%
- The U-Pass component has increased $7.20 per term (11.9%)

Orientation Fee
Motion: To approve that the Orientation Fee, assessed and collected from each incoming full-time, first-year undergraduate student, be increased from $101.00 to $103.53 effective September 2012 (fall term).

Comments:
- The original $100.00 fee was approved by student referendum in February 2005
- The fee is collected in the fall term only
- The fee can be adjusted by CPI each year
- The fee is refundable through the Federation of Students; students seeking a refund are required to request the refund prior to the start of frosh week.

**GSA Administered Fees**

**Motion:** To approve that the GSA Administered Fees, assessed and collected from active full-time and part-time graduate students, be increased as follows:

<table>
<thead>
<tr>
<th></th>
<th>Dental</th>
<th>Health</th>
<th>U-Pass</th>
<th>Grad House</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>$63.00</td>
<td>$51.25</td>
<td>$67.84</td>
<td>$15.00</td>
<td>$197.09</td>
</tr>
<tr>
<td>Part time</td>
<td>$63.00</td>
<td>$51.25</td>
<td>$0.00</td>
<td>$15.00</td>
<td>$129.25</td>
</tr>
</tbody>
</table>

Comments:
- Payment of the fees is a requirement of registration.
- The Graduate House Fee is refundable directly through the Graduate Student Association (GSA).
- The health and dental components are refundable through the GSA and its service provider.
- The U-Pass fee pays for a universal bus pass with Grand River Transit; the fee is assessed to all full-time graduate students on campus within the Region of Waterloo; the fee is not refundable.
- The proposed fee changes were approved at the GSA Board of Directors meeting on May 10, 2012.
- The health component has decreased 1.5%; the dental component has increased 5%.
- The U-Pass component has increased $7.20 (11.9%).

**Graduate Student Society Fees**

**Motion 1:** To approve that the Kinesiology Graduate Student Association Fee be increased from $5.00 per term for full-time graduate students and $2.50 per term for part-time graduate students to $7.00 per term for full-time students and $3.50 per term for part-time students effective September 2012 (fall term).

Comments:
- The fee is refundable during the first three weeks of the term.
- The Kinesiology Graduate Student Association approved the fee increase through a referendum held on February 3, 2012.
- The current fee was established in September 1984.

**Motion 2:** To approve that a new graduate student society fee be assessed for the School of Public Health and Health Systems. The proposed fee would be $5.00 per term for full-time graduate students and $2.50 per term for part-time graduate students effective September 2012 (fall term).

Comments:
- The proposed fee was approved by student referendum on May 9, 2012.
- The fee is refundable during the first three weeks of the term.

**Access Copyright Fee**

A recommendation to re-introduce fees related to Access Copyright licensing may be presented at the Board meeting. The previous Cancopy Fee was discontinued in 2011 pending the satisfactory negotiation of a national university agreement related to copyright.

Dennis Huber
Vice President, Administration & Finance
Restructuring
The University of Waterloo has joined many other top-tier institutions, including University of Toronto, University of Alberta and McGill University, with the establishment of two vice-president positions – University Relations and Advancement – to encompass the teams and responsibilities previously held within External Relations.

Financial Result Highlights
Following best practice and in order to illustrate results on both an activity basis as well as actual cash flow, Waterloo reports on dollars raised (new cash and pledges) and dollars received (new cash and pledge payments from previous pledges).

As of May 11, 2012, preliminary fundraising results for the fiscal year ended April 30, 2012 totaled $51.1 million in new dollars raised and $42.4 million in dollars received. This compares to $65.3 million and $46.2 million respectively for fiscal 2011.

It is relevant to note that the above amounts do not include the pledged investment of $25 million by the Schlegel Family to establish the Centre of Excellence in Teaching and Research for Seniors on the north campus as the final memorandum of agreement was not signed before year end. Waterloo’s practice is to count the gift upon final execution of the agreement. Therefore, this gift will be included in the fiscal 2013 funds raised results.

Attached for the board’s information is a confidential list of new gifts and pledges exceeding $200,000.

Planned Giving
Planned giving is an area that has strategic importance to the university’s future financial strength. A staff vacancy of seven months in planned giving, in combination with senior fundraising vacancies in the faculties, negatively impacted our planned giving activity level. Notwithstanding this, we secured 19 new bequests with an estimated value of $2.2 million bringing the total value of known bequests to $55 million. During fiscal 2012 we realized bequests totaling $2.3 million from eleven estates. Having filled the planned giving vacancy and with strong teams ramping up in the faculties, we will aim to increase our planned giving activities in fiscal 2013.

Asks Outstanding: $99,815,150

Verbal Commitments: $26,736,546

Activity Highlights
President Hamdullahpur was very engaged in Advancement activities over the past year, not the least of which was his commitment to meeting personally with the president and CEOs of 100 corporations with the potential to invest or partner with the university. To date, 62 of those 100 meetings have taken place across the country. While the introduction meetings will continue, significant conversations and activity has been generated that will yield results over the next few years and beyond.
**Human Resource Update**

Hiring and filling senior vacancies within the advancement offices in the faculties was also a priority during this fiscal year. Led by Susan Crowley and the dean of the respective faculty, director of advancement positions were filled in environment (Valerie Malloy), mathematics (Ingrid Town) and arts (Kim Bardwell). In addition, Martha Nelson joined the Faculty of Engineering as executive director of advancement. The Office of Development is actively engaged with Terry McMahon in filling the director of advancement vacancy in the Faculty of Science.

Closing the year with three associate director and two additional key professional staff vacancies in the Office of Development means the focus on recruiting and retaining talented and experienced advancement professionals will remain a key priority in fiscal 2013.

Tim Jackson
Vice-President, University Relations and
Interim Vice-President, Advancement
FOR INFORMATION

Total sponsored research awards of $192,555,191 – an increase of 1.1% over previous year.

Tri-Council Update

Success Rates

- Natural Sciences and Engineering Research Council of Canada (NSERC)
  - Discovery Grants 77.7% (150/193) – national average 62.2% with a 22% increase in applications resulting in a $945,578 increase in awarded funds
  - Discovery Accelerator Supplements – nine out of 125 awarded nationally; 7.2% of all awarded came to Waterloo
  - Strategic Grants were down overall this year, Waterloo received three awards – $1,690,232 over three years
  - Equipment Grants – 13 funded at an average of $101,467 each for a total of $1,319,071
  - Engage Grants – successful projects – $1,314,205

- Social Sciences and Humanities Research Council (SSHRC)
  - Insight Grants 20% (9/44) – $1,933,413 – national average 27%  
    - 16 not supported due to lack of funds
  - Grants competitions – $3,675,459
    - Public Outreach Grants (2/2) $ 148,700
    - Workshop Grants (1/1) $ 22,455
    - Partnership Grants (1/1) $2,549,960
    - Partnership Development Grant (5/6) $ 954,344

- Canadian Institutes of Health Research (CIHR)
  - Waterloo researcher Geoff Fong received the largest operating grant ever awarded – $7.4M over five years
  - Funds received in FY 1112 from Open competition – $2,290,913
  - Funds received in FY 1112 from Strategic competitions – $2,718,325
  - Strategic grants have grown by 225% in the past three years

Canadian and US Government funded contracts – $14.5M. These activities are reported separately from the Tri-Council Grants and International Programs Office.

Industry

- Canadian, US and Foreign – $23,965,308
  - This is an increase of $6,500,499 from last year

International Programs Office (IPO)

- IDRC International Research Initiative on Adaptation to Climate Change (IRIACC) – Daniel Scott (geography) – $2.5M over five years (Waterloo administers $1.25M; partner organization in Caribbean administers $1.25M)
- Grand Challenges Canada’s Canadian Rising Stars in Global Health – Karim S. Karim (electrical & computer engineering) – $113,000 for one year
• Grand Challenges Canada and Bill and Melinda Gates Foundation Funding — John Yeow (Systems Design Engineering) — subcontract for $315,000 with Bigtec labs industry partner in India
• International Research Partnership Grants — 16 projects funded — led by researchers from all six faculties — $240,000 awarded and researchers have leveraged $400,000 in matching funds
• Training Contracts — totalling $353,400: MME & ITESM students, Mexico; Chongqing University of S&T Training Program, China; Earth Sciences & China Petrochemical Corporation; Earth Sciences & Daqing Oilfield Company
• Over 320 international agreements in 60 countries for joint research, student and faculty exchanges and collaborative academic programs

WatCo
• NSERC I2I — $601,121 awarded (two with 2nd year awarded — $218,531 for 2013)
• FedDev — Academic Research Collaboration (ARC) program — 2nd round — $750,000 with industry match
• FedDev Commercialization Fellowship — $600,000

Major Funding and Award Announcements
• Killam Fellowship Award — Michel Gingras (physics & astronomy)
• CIHR Knowledge Translation Award — Geoff Fong (psychology)
• Canadian Cancer Society, Propel Grant — $8.86M over five years
• Two Waterloo faculty members newly elected to the Royal Society of Canada — Linda Nazar (chemistry), Douglas Stinson (computer science)
• The Sir John William Dawson Medal, Royal Society of Canada — Keith Hipel (systems design engineering)
• SSHRC Partnership Grant — Neil Randall (Games Institute/English) — $2,549,960 over seven years
• Canada Research Chairs — one Tier 2 ($500K), one Tier I ($1.4M)
• Canada Research Chair Leaders Opportunity Fund — two awarded ($89,000)
• Early Research Awards — eight awarded ($140K each plus university matching of $50K each)
• Canada Foundation for Innovation — Leaders Opportunity Fund — 12 projects funded — $870,900
• Ontario First — Jim Barker (earth & environmental science) — $8,853,561; Sherman Shen (electrical & computer engineering) — $1,884,171
• Automotive Partnership Canada — Mike Worswick (mechanical & mechatronics engineering) — $3,729,536; Xianguo Li (mechanical & mechatronics engineering) and Zhongwei Chen (chemical engineering) — $500,000

George Dixon
Vice-President, University Research
FOR APPROVAL

1. **UW Financial Statements, 2011-2012**
   
   Motion: That the Board of Governors delegate its authority to approve the university’s audited financial statements for the fiscal year ended April 30, 2012 (the “Financial Statements”) to the Board Executive Committee.

   **Background:** The Financial Statements will be reviewed by the Audit Committee at its July meeting. In the past, the Financial Statements were presented to the Board of Governors for approval at its October meeting. Due to changes in auditing standards, if the Financial Statements are not approved until the October meeting of Board, the auditors will be required to perform a subsequent events review and bring any changes to an extraordinary meeting of the Audit Committee before the Financial Statements can go before the Board. Approval of the Financial Statements before the October meeting of Board will also allow the university to make certain filings and release information based on the Financial Statements earlier than in previous years.

FOR INFORMATION

1. **2012 Declaration of Statutory Compliance.**

   UW’s legal counsel identified the following federal and provincial statutes as posing the greatest potential liability for Board members in the event of non-compliance:

   - Accessibility for Ontarians with Disabilities Act
   - Act to Promote Safety and Security with Respect to Human Pathogens and Toxins
   - Animal Health Act
   - Building Code Act
   - Commercial Tenancies Act
   - Construction Lien Act
   - Copyright Act
   - Employment Standards Act
   - Endangered Species Act
   - Environmental Protection Act
   - Fire Protection and Prevention Act
   - Hazardous Products Act
   - Income Tax Act
   - Liquor Licence Act
   - Occupational Health and Safety Act
   - Ontario Human Rights Code
   - Ontario Water Resources Act
   - Pesticides Act
   - Residential Tenancies Act
   - Smoke-free Ontario Act
   - Transportation of Dangerous Goods Act

   Those responsible for institutional compliance have reviewed these statutes and have signed a declaration indicating that there are no areas of substance where UW is not in compliance.

2. **Liability and Board Members.**

   The committee reviewed the Executive Protection Policy for 2011-2012 and found it satisfactory.

3. **Risk and Risk Mitigation**

   The committee has received several audit reviews and audit follow-up reports. On the basis of reviews of UW management initiatives and approaches, the committee is satisfied that risk mitigation is being addressed.

/rnw

David McKay
Chair
FOR APPROVAL

1. Science Addition
   
   **Motion:** That the Board of Governors delegate its authority to the Building & Properties Committee to award a design/build contract for the construction of the science building addition after the Board of Governors meeting on June 5, 2012 (and before the board meeting in October).

   **Background:** With an approved budget of $45 million, the university issued a Request for Proposal (RFP) to five pre-qualified design/build teams in March 2012. Responses to the RFP are required on June 21, 2012. Those submissions will be reviewed by the President's Advisory Committee on Design with a recommendation for the Building & Properties Committee expected in early July.

   The building is approximately 120,000 square feet and is located south of Biology 2 and west of Biology 1. The general area of site was identified in the university’s 2009 Campus Master Plan Update. The site is supportive of future expansion to the east. [See the attached site plan.]

FOR INFORMATION

2. General Oversight
   
   The committee reviewed and accepted for information:
   - the capital financing commitments associated with the capital projects and advises that these commitments fall within the university’s board-approved debt policy; and
   - the maintenance program and energy conservation efforts of the university and advises that energy intensity is slowly increasing and will increase further when the new energy intensive buildings, such as the Quantum-Nano Centre, come online. The university continues to work on sustainability initiatives and reducing its carbon footprint.

/rmw

Catherine Booth
Chair
FOR INFORMATION

1. **2012-13 Operating Budget**
   Following a review of the operating budget for 2012-13, risks to achieving the budget and measures being taken to mitigate budgetary pressures, the committee advised that it was prepared to support the proposed budget.

2. **General Oversight**
   The committee reviewed and confirmed the adequacy of its terms of reference and the terms of reference for Finance & Investment Subcommittee, Pension & Benefits Committee and Registered Pension Plan Investments Subcommittee.
University of Waterloo  
PENSION & BENEFITS COMMITTEE  
Report to the Board of Governors  
June 5, 2012  

FOR APPROVAL  

1. Actuarial Valuation of the UW Pension Plan as at January 1, 2012  

Motion: To approve the “Actuarial Report: University of Waterloo Pension Plan” as of January 1, 2012 (the “Valuation”), recognizing that the report will not be filed with the Financial Services Commission of Ontario (FSCO).

Background: The University of Waterloo Pension Plan (the “Plan”) is an inflation-linked defined-benefit plan. The Plan is funded by contributions from the employees and the university and by investment returns. The total annual contribution is determined by applying actuarial methods with assumptions about investment returns, mortality, inflation and salaries. As reported at the April 3, 2012 meeting of the Board of Governors, the committee, on the advice of the plan’s actuary, decided to make changes to the economic assumptions (i.e., assumed increase in inflation and salaries and assumed investment return) and to adopt a mortality table that builds in generational improvements in mortality. For comparison purposes, this report shows the January 1, 2012 Registered Pension Plan results under the 2011 assumptions and under the new assumptions.

Due to the volatile investment markets and low interest rate environment, the pension plan is in a deficit position. The university is making additional contributions to meet the unfunded liability. As well, the committee will be recommending to the Board changes to the contribution rates and benefits after discussions with the community (see item 2 below). The university filed a valuation report with FSCO as of January 1, 2011; the next required filing is as of January 1, 2014.

A copy of the Valuation can be requested through the committee’s secretary, ext. 35924.

Financial Position of the Plan

Going Concern Basis. A valuation conducted on a going-concern basis is to determine the relationship between the respective values of assets and accumulated liabilities, assuming the Plan will be maintained indefinitely.

<table>
<thead>
<tr>
<th></th>
<th>01.01.2011</th>
<th>01.01.2012 (2011 Assumptions)</th>
<th>01.01.2012 (new Assumptions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuarial value of assets</td>
<td>$885,225,589</td>
<td>$961,068,289</td>
<td>$961,068,289</td>
</tr>
<tr>
<td>Actuarial liability</td>
<td>$1,026,734,422</td>
<td>$1,080,339,369</td>
<td>$1,120,943,191</td>
</tr>
<tr>
<td>Funding excess (unfunded liability)</td>
<td>$(141,508,833)</td>
<td>$(119,271,080)</td>
<td>$(159,874,902)</td>
</tr>
<tr>
<td>Deferred asset gain (loss) due to asset smoothing</td>
<td>$26,358,618</td>
<td>$(12,490,977)</td>
<td>$(12,490,977)</td>
</tr>
<tr>
<td>Market value of assets</td>
<td>$959,478,177</td>
<td>$1,012,423,454</td>
<td>$1,012,423,454</td>
</tr>
</tbody>
</table>

The actuarial liabilities shown above have been discounted based on a 3.85% real rate of return. The actuarial value of assets for assets other than real return bonds reflects a smoothing over a three-year period of investment gains/losses in relation to the expected return on these assets. For the real return bonds, the actuarial value of assets is calculated by discounting the projected cash flow from the bonds using a discount rate of 3.85%, to be consistent with the rate used to discount the liabilities.

Solvency Basis. A valuation conducted on a solvency basis is used to determine the relationship between the respective values of the Plan’s assets and its liabilities assuming the Plan was wound up and settled on the valuation date. Because the report is not being filed this year, the committee agreed that the solvency calculation was not necessary.
Funding Requirements. Under the funding protocols established by the committee, the university contributions to the Registered Pension Plan and Payroll Pension Plan (see below) were set at 155% of required member contributions. Effective May 1, 2012 (subject to approval of the operating budget), the university increased its contributions to 165% of required member contributions, which, on a full year basis, will result in an annual special payment of $8.4 million toward the going concern funding shortfall. The full university contribution is being directed to the Registered Pension Plan to meet the current service cost requirements and to amortize the going concern funding shortfall.

Asset Mix

<table>
<thead>
<tr>
<th>Asset Mix (% of Total Market Value)*</th>
<th>As of January 1, 2011</th>
<th>As of January 1, 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Return Bonds</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>Fixed Income, Cash</td>
<td>38%</td>
<td>37%</td>
</tr>
<tr>
<td>Equities</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

*Asset mix is based on the underlying assets excluding in-transit contributions and payments.

Membership Data

<table>
<thead>
<tr>
<th>Membership Data</th>
<th>Jan. 1/09</th>
<th>Jan. 1/10</th>
<th>Jan. 1/11</th>
<th>Jan. 1/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Members</td>
<td>3455</td>
<td>3499</td>
<td>3518</td>
<td>3617</td>
</tr>
<tr>
<td>LTD Members</td>
<td>90</td>
<td>87</td>
<td>93</td>
<td>96</td>
</tr>
<tr>
<td>Suspended Members</td>
<td>15</td>
<td>7</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Current Pensioners</td>
<td>1345</td>
<td>1400</td>
<td>1432</td>
<td>1480</td>
</tr>
<tr>
<td>Deferred Pensioners</td>
<td>395</td>
<td>394</td>
<td>422</td>
<td>447</td>
</tr>
<tr>
<td>Total</td>
<td>5300</td>
<td>5387</td>
<td>5477</td>
<td>5650</td>
</tr>
</tbody>
</table>

History of Asset Returns. The following table shows the history of asset returns for the last six years:

<table>
<thead>
<tr>
<th>Year Ending</th>
<th>Return on Market Value *(After Expenses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 31, 2006</td>
<td>13.25%</td>
</tr>
<tr>
<td>December 31, 2007</td>
<td>1.62%</td>
</tr>
<tr>
<td>December 31, 2008</td>
<td>-21.51%</td>
</tr>
<tr>
<td>December 31, 2009</td>
<td>14.70%</td>
</tr>
<tr>
<td>December 31, 2010</td>
<td>8.49%</td>
</tr>
<tr>
<td>December 31, 2011</td>
<td>2.89%</td>
</tr>
</tbody>
</table>

The returns (after all expenses) on market value have been calculated assuming contributions and benefit payments take place in the middle of the year.

* Excluding real return bonds
FOR INFORMATION

2. Proposed Changes to the Pension Plan & Member Information Sessions

The committee intends to bring recommendations re: changes to Plan contribution rates and benefits to the October meeting of the Board of Governors. The committee will be holding several information sessions in the month of June in order to inform members of the nature of the changes, the rationale for making the changes and the impact on individuals and the Plan.

3. Payroll Pension Plan

The University of Waterloo Payroll Pension Plan provides pension benefits (subject to plan caps) that cannot be paid from the Registered Pension Plan because of the application of the Income Tax Act maximum pension. The Registered Pension Plan and Payroll Pension Plan are integrated from a financial management perspective. Assets are set aside within the university funds in respect of the obligations under the Payroll Pension Plan. A going concern valuation of the Payroll Pension Plan is also performed in conjunction with the annual valuation of the Pension Plan, using the same actuarial assumptions. The values in this section are reported under the new assumptions. As of January 1, 2012, the actuarial liabilities of the Payroll Pension Plan were $16 million. The market value of the funds set aside was $18.6 million. The current service cost for 2012 is $469,697 or 0.15% of pensionable earnings, bringing the combined university current service cost for the Registered Pension Plan and Payroll Pension Plan to 8.65% of pensionable earnings.

4. Premium Increases for Benefits Plan

At the April 3, 2012 Board of Governors meeting, the committee reported that the group life insurance premium (contract rate) will decrease by 10% effective May 1, 2012. The committee is pleased to report that the carrier has approved a further reduction of 5% for optional life insurance rates (applied to employee 4x-6x salary and spousal life insurance) for a total reduction of 15% off optional life insurance rates. Note: optional life insurance rates are 100% employee paid.

/rmw
Janet Passmore
Chair
EXECUTIVE SUMMARY

Curiosity drives discovery. By focusing our innate curiosity on the world around us, we learn about natural phenomena — what they are, how they work, and how we can use them to improve our lives and society. Harnessing and controlling natural forces — fire, steam, electromagnetism and more — has given us technologies that are part of our everyday lives, from cars to phones to computers.

A century ago, scientists unveiled nature's most fundamental forces — those that govern the world of atoms, electrons and reality's other building blocks. The framework scientists built to describe these forces, quantum mechanics, has opened a new window of understanding on our universe and ourselves.

We are now at pivotal point in science, where we can not only describe the forces of the quantum realm, but actually harness and control them. We are building powerful new technologies that function according to quantum mechanical laws — technologies we know will offer incredible advantages over their "classical" predecessors. Such technologies have already emerged from quantum information research; we have only begun to envision the possibilities of this quantum revolution.

The Institute for Quantum Computing is a multidisciplinary research organization within the University of Waterloo supported by a partnership of the federal and provincial governments and the visionary philanthropy of Mike and Ophelia Lazaridis. It aims to develop quantum information science and technology at the highest international level. This is happening through the collaboration of computer scientists, engineers, mathematicians and physical scientists, all working under one roof with a common goal. IQC is establishing Waterloo as a world-class centre for research in quantum technologies and their applications. The institute aims to be a magnet for the world's top minds in quantum information science, and to communicate their results to Canadians and the world.

IQC was launched a decade ago in just two small offices at the University of Waterloo. In one short decade, the institute has grown to become the world's largest concentration of quantum information researchers, with 17 faculty, 5 research assistant professors, 40 postdoctoral fellows and 96 students. The accomplishments of these researchers have made Waterloo a globally renowned centre for quantum information research. This reputation has enabled IQC to attract more truly outstanding scientists, including one of only 19 Canada Excellence Research Chairs and a Nobel Prize winner. IQC’s students and postdoctoral fellows come from all the corners of the globe and move on from the institute prepared as the quantum workforce of the future.

Research at IQC is focused on quantum computation, communication and sensors. The pioneering research conducted by IQC scientists has advanced every avenue of quantum information research — from theoretical foundations (quantum error correction, algorithms, complexity theory, quantum information theory) to experimental approaches (quantum processing via spin, optics, nanoelectronics, sensors and more). While practical quantum computers are still a long-term goal, discoveries along this path have already led to innovative spin-offs and start-up companies.

In the last three years we have introduced a collaborative graduate studies program that brings together six university departments from three faculties. Nowhere else in the world can you find a program of similar breadth of scope and expertise. We have launched summer schools to introduce quantum science to high-school students and lets undergraduate students know the University of
Waterloo is the best place to pursue graduate studies in quantum information. IQC has established a communications and outreach team that helps to share the importance of its research with a variety of audiences, from government stakeholders and fellow scientists to the general public.

Renowned visiting scholars from around the world visit IQC on a daily basis — delivering talks and collaborating with IQC scientists — and they carry their IQC experiences with them when they return to their home institutions. Thanks to IQC’s ever-growing output of research publications, scientific reviews, conferences, workshops, open houses and online videos, a broader audience has learned about quantum information science. Such awareness-raising reinforces the importance of Canada’s major investment and leadership in quantum research, and helps secure the future of that investment.

IQC builds upon and enhances the University of Waterloo’s reputation for scientific innovation and entrepreneurial achievement. As quantum technologies emerge from IQC research, the institute will develop strong connections with industry on the path to commercialization. During IQC’s first five years, a key goal was to recruit a base of theoretical scientists; the next five years saw the recruitment of experimentalists and building of the infrastructure needed for their work. The opening this fall of the IQC’s permanent headquarters, the state-of-the-art Mike & Ophelia Lazaridis Quantum-Nano Centre at the heart of campus, will be another enormous step in the ongoing expansion and evolution of the institute.

The institute will take maximum advantage of new experimental facilities to test fundamental concepts and engineer innovative quantum devices. We will deepen our graduate program to ensure that our students are fully prepared to lead the next wave of quantum research and development. Over the next several years, IQC will reach a total complement of 30 faculty, 50 postdoctoral fellows and 125 graduate students.

IQC will continue to foster meaningful collaborations with the international research community and increase exchange of researchers with national and international institutes. The communications and outreach team will ensure that IQC’s research and achievements are conveyed to all audiences — local, national, and international — to develop a widespread intuition and understanding about the benefits of quantum science.

Although quantum information science is still in its infancy, it has already transformed our understanding of the world and shaken the foundations of computer science. It has forced us to rethink not only our basic understanding of nature, but also questions of privacy and national security. Its development will transform information technologies and have societal impact in ways we have only begun to imagine. IQC is providing a fertile ground to develop science; the next five years will also fuel a nascent and tremendously important quantum industry.

The Institute for Quantum Computing has met and exceeded its ambitious goals since inception — and especially since the essential infusion of support from Industry Canada. The benefits of such support are, in many ways, immeasurable. But we hope this report will take you into greater depth about how, thanks to the visionary support provided by the Canadian government via Industry Canada, IQC is establishing Waterloo and Canada as the world’s "Quantum Valley."